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A COMPARISON OF REHEARSAL
TIME USE BY HIGH SCHOOL BAND DIRECTORS

A Thesis

by

KEITH EVAN EAGLE

Submitted to the Graduate School

Appalachian State University

in partial fulfillment of the requirements for the degree of

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April 1997

Major Department: Music

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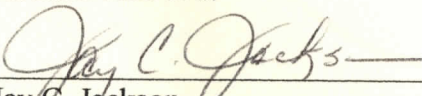
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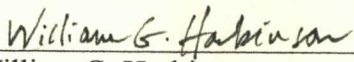
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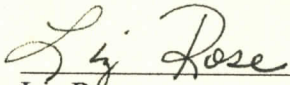
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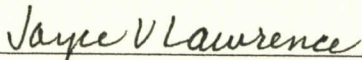
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THE EFFECTS OF THE BASS-DIRECTOR (April 1997)

Submitted by: J. M. F. Wright, College

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April 1997

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ABSTRACT

A COMPARISON OF REHEARSAL

TIME USE BY HIGH SCHOOL BAND DIRECTORS. (April 1997)

Keith Evan Eagle, B.M.E., Wingate College

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The purpose of this study was to determine the effect of high school band directing experience on use of class time in the activities of performance and non-performance. Secondary objectives examined the effects of school class schedule, class size, and student grade level on the director's use of class time. Data were collected by observing high school band directors ($N = 21$), within a 75-mile radius of Charlotte, North Carolina, conducting their regular band class. Data were recorded as either performance or non-performance at the end of each 30 second timed interval. The range of percentages of time in performance was 32.46%-69.66%. The mean percentage of time directors engaged in performance was 50.21%. Directors were grouped according to years of experience, type of class schedule, class size, and student grade levels. Directors were grouped according to the following years of experience: (a) 1-3, (b) 4-6, (c) 7-10, and (d) 11 or more. No significant difference ($p = .96$) was attributed to the condition of experience. Directors were grouped according to class schedule using either a traditional

class schedule (50-55 minutes) or a block schedule (75-90 minutes). No significance ($p = .85$) was found in use of class time as affected by class schedule. There were also no significant differences in the director's use of time as affected by either class size or student grade levels ($p = .54$ and $p = .53$ respectively).

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This project is dedicated to

God, my family, and my

Loving wife, Kim,

for their continuous support.

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CHAPTER I. INTRODUCTION

There is one rehearsal rule that seems to be universal in music education. It is to keep words to a minimum and the students performing (playing or singing) as much as possible during the allotted rehearsal time (Witt, 1986). Portions of music rehearsals in which students perform generally are more beneficial to both the teacher and the students than periods of non-performance. Students in music classes tend to be more on task, more attentive, and better behaved during performance than non-performance (Forsythe, 1977; Klinka, 1971; Madsen & Geringer, 1983; Yarbrough, 1987; Yarbrough & Price, 1981). During an ensemble rehearsal students are naturally more attentive when they are performing than not (Brendell, 1992; Yarbrough, 1987). Active participation and attentiveness in the music classroom provide for more effective learning than through listening to verbal instruction (Wagner & Strul, 1979).

The evaluation of a teacher's effectiveness is most often contingent upon the way in which the teacher makes use of the available instructional time (R. C. Watkins, 1996). Within the music classroom the teacher tends to teach more effectively when the students are led through active participation. Researchers who examine attentiveness as it relates to the activity taking place in the music classroom all agree that students are generally more attentive when they are performing than when they are not performing (Forsythe, 1977; Madsen & Geringer, 1983; Merrion, 1989; Witt, 1986; Yarbrough & Price, 1981).

Students naturally learn more when they are attentive to the task at hand. A greater amount of time allotted to performance as opposed to non-performance during ensemble rehearsals presents itself as an appropriate characteristic of a professional school band director.

In many professions, including music education, professionals often improve as they gain more experience. Experienced music teachers use less time in preparatory activities and spend more time on-task than beginning music teachers (Moore, 1981). Experienced music teachers also waste less time in giving directions than beginning music educators (Wagner & Strul, 1979). Provided the utilization of more time in performance than non-performance is an attribute of a professional music educator, the degree to which a band director conducts students in performance may be relative to the number of years of experience of the band director.

In an effort to determine if experience is a significant factor in the use of time in performance or non-performance by high school band directors during rehearsals, there is a need for more focused attention toward how individual music educators use class time. A study of how professional school band directors use their allotted rehearsal times could also be very useful in providing an appropriate example of the utilization of class time for other music educators (Moore, 1981).

Purpose

The primary objective of this study was to determine if the amount of high school band directing experience is a significant factor in the amount of time devoted to directing

the band in performance of non-performance. Secondary objectives considered the school class schedule design employed (block or traditional), the number of students within the band, and the constituent grade levels of the band students as they each relate to the director's use of class time. The primary and secondary null hypotheses are stated as follows:

Primary Hypothesis

1. There is no significant difference between the mean percentages of rehearsal time in which high school band directors conduct their bands in performance and non-performance and the number of years of experience in band directing possessed by the band directors.

Secondary Hypotheses

2. There is no significant difference between the mean percentages of rehearsal time in which high school band directors conduct their bands in performance and non-performance and the class schedule design employed by the schools in which the directors teach.
3. There is no significant difference between the mean percentages of rehearsal time in which high school band directors conduct their bands in performance and non-performance and the number of band members within their bands.

4. There is no significant difference between the mean percentages of rehearsal time in which high school band directors conduct their bands in performance and non-performance and the constituent grade levels of the students in their bands.

CHAPTER II. REVIEW OF THE LITERATURE

Time Use in Performance and Non-Performance

One of the more common problems that music teachers experience is excessive talking or lecturing during the allotted rehearsal time. Many music professionals and scholars suggest increasing the amount of class time in student performance and decreasing time in preparation and verbal instruction periods. At present teachers spend too much time talking and in preparation as opposed to conducting their groups through performance (Klinka, 1971; Merrion, 1989). Much of the unnecessary talking within performance ensembles seems to result from statements that could have easily been demonstrated through the conducting gestures of the teacher (Kohut & Grant, 1990; Vermel, 1977; Withrow, 1981). Decker and Kirk (1988) warned against too much talk by the teacher in the music classroom. They asserted prolonged explanations and unnecessary repetitions of directions tend to produce student disinterest and a loss of momentum. Excessive talk and verbal explanation by the teacher most often loses the interest of students as opposed to advancing their musical knowledge (Kohut & Grant, 1990). Spradling (1985) suggested time spent in instruction by the teacher is often counterproductive for the students in performance ensembles. The students would most likely learn much more about music if they were allowed to play more of it. Withrow

(1981) described words as being precious if used properly. Words become cheapened by using those that are unnecessary. He suggested using one word or phrase that can be explained once in complete detail and used thereafter for similar situations. In addition, he stated that "The verbal expressions of any conductor, living or dead, are not a satisfactory substitute for experiencing great music by singing it." He also added, "It is safe to say that you do not remember anything [an admired conductor] said that took more than 25 seconds to say" (p. 13).

The primary purpose of any performance ensemble is to perform (Withrow, 1981). The members of performance ensembles most often prefer performing as opposed to listening to long explanations by the director, even when the explanation is about the music (Fowler, 1978; Merrion, 1989; Naderi, 1985; Witt, 1986). A study of professional orchestral conductors revealed experienced professional symphony musicians serving as evaluators preferred 80% of rehearsal time be used in performance of music (Naderi, 1985). The evaluators also preferred verbal comments in the rehearsal to be positive and take minimal time to deliver.

There are a number of studies which examined how time is used in music classes and rehearsals. The research often divides activities into separate, but similar categories. Wagner and Strul (1979) investigated the types of activities occurring in the music classroom. These activities were divided into teaching, music, non-teaching, and various combinations. The subjects of this study used a majority of the allotted time in teaching, preparation, and playing instruments. In the study by Yarbrough and Price (1981) activities were divided into performance and non-performance. Performance was defined

as playing or singing by the entire ensemble or in smaller sections. Non-performance activities included teacher instruction, teacher reinforcement, or any activity not involving students' music performance. Witt (1986) similarly labeled activity in her study as student performance, teaching episodes, or preparation activities.

There are many research disparities in the literature regarding percentages of time that teachers use in various activities within a music class. Moore (1981) studied American and British general music specialists during rehearsals and observed minimal time wasted in idle talk by all subjects. American and British teachers were similar in the amount of time they used in instruction and discussion (approximately 25% and 18% respectively). They differed in the amount of time used in class singing; Americans sang 23% of the time and British sang 30%.

A majority of the research available on non-performance music classes within schools divides class time into approximately 40% teaching, 34% student performance, and 15% preparation (Witt, 1986). Talking by the conductor in performance ensembles consumed approximately 40% of rehearsal time in many studies (Dickey, 1988; Montgomery, 1986; Murray, 1980; Pontious, 1982; Single, 1990; Spradling, 1985; Thurman, 1977; Tyson, 1988; Witt, 1986). While other music curricular areas were consumed more by teaching than performing, performance ensembles ordinarily spent more time in performance (Forsythe, 1977; Madsen & Geringer, 1983; R. C. Watkins, 1996; Witt, 1986; Yarbrough & Price, 1981). Madsen and Geringer (1983) found that choral and instrumental ensemble directors devoted 65% of class time to student performance. The subjects of Moore's (1987) study significantly ($p < .05$) allotted more

time to singing than any other activity. He also found subjects significantly ($p < .05$) used more time in instruction and discussion than any of the other activities with the exception of singing. In a study which examined the use of time by successful choral directors, Caldwell (1980) also found his subjects to devote an average of 65% of rehearsal time to performance trials. R. E. Watkins (1986) found his subjects dedicated 50% of rehearsal time to each of the activities of performance and verbal behavior. Several other studies found student performance consumed less than half of the allotted class time (Merrion, 1989). Witt (1986) observed that class time was distributed as 43.3% in student performance, 38.9% in teaching, and 17.8% in preparation. She also concluded the use of class time was significantly ($p < .01$) related to class genre (band or orchestra). Band directors were found to have more teaching episodes of shorter duration than orchestra directors. Band directors also allowed less time for preparation activities than orchestra directors. However, band classes used more time in organizing music than orchestra classes. Time usage was also related to grade level in this study. Junior high classes employed more time in preparation and organization of music than high school classes.

Another study compared the use of rehearsal time by experienced music teachers of students in different grade levels (Yarbrough, 1988). The professional orchestra director in this study used less time in giving directions than all of the other subjects. Senior high school choral and band directors, and the junior high school choral director each spent more time in giving directions than the junior high school band director and the elementary vocal teacher. The researcher was surprised by this finding in that she had predicted the activity of giving directions would decrease as student musical experience

increased. Each of the subjects led their ensembles in performance approximately 50% of the allotted rehearsal times. All subjects, with the exception of the elementary teacher, used well over 50% of rehearsal time in the combined activities of performance and giving directions.

Effects of Time Use On Student Behavior

It is not only important to examine the actions of the teacher, but also the effect of these actions on the student. "Energetic, fast-paced, efficient rehearsing does more than get the job done - it can change the attitudes of players and generate interest and energy" (Vermel, 1977, p. 94). Not only is the student's attention more focused during performance, but discipline problems are minimal as well. Discipline problems most often occur at the point in which the director begins talking (Klinka, 1971). The extent in which students are on-task also decreases when conductors interrupt performances to discuss the music (Merrion, 1989). Goolsby (1996) reported a possible correlation between the percentage of time band directors used in verbal discipline and the percentage of rehearsal used in performance.

Attending behavior in relation to the use of class time was examined in several studies. Attending behavior is defined by whether a student is on-task or off-task. Forsythe (1977) specifically defined attending behavior as "appropriate attending to and/or participating in classroom activities and events." Attending behavior is often regarded as a "prerequisite to academic learning. The student who does not attend to an academic learning task...is not likely to learn from it" (p. 229). Madsen and Madsen

(1981) asserted academic learning suffers when students are on-task less than 80% of rehearsal time.

Yarbrough and Price (1981) investigated on-task and off-task behaviors as they related to performance and non-performance. They found students to be more on-task during performance than non-performance. "[There is a] strong relationship between off-task behavior and non-performance activity" (p. 213). The data from their study supports the premise that the act of performing music, or simply the music itself, serves as a reward to students. This premise is corroborated by similar studies (Price, 1983). Forsythe (1975) found off-task percentages to be higher in the regular classroom than in the music classroom for the same select students. This further supports the inherent reinforcing quality of the music classroom.

In another study Yarbrough (1987) concluded that average student off-task behavior in the first four minutes of one high school band rehearsal was 25% during non-performance and 8% during performance. Students appeared more attentive when they performed a greater percentage of the rehearsal. Witt (1986) examined the relationship between class time use and attentiveness in secondary instrumental music rehearsals. In her study, on-task behavior was defined as "appropriate attending to, or participating in, classroom events" (p. 37). Witt found off-task behavior to be 3.4% during performance and 17.8% during non-performance. She suggested teachers utilize as much of rehearsal time as possible in performance due to better attentiveness during performance than non-performance intervals. She also discovered orchestra students had more incidents of off-task behavior than band students during performance and

non-performance conditions. However, she concluded the difference may be attributed to class size and structure rather than genre.

A study which examined the effects of teacher approval and disapproval on performing ability, attentiveness, and attitude of choral students also compared percentages of on-task behavior during different types of student activity (Murray, 1974). During the observations, average on-task behavior was 99% during performance, 97% during sectional performance, and 95% during non-performance. Regular rehearsal data listed on-task behavior as 95% during performance, 91% during sectional performance, and 82% during non-performance. Murray also concluded that choral students were more on-task during performance than non-performance.

Spradling (1985) investigated attentiveness in university-level band classes. The purpose of his study was to determine if the attentiveness and attitude of students is affected by breaks in performance at different frequencies and durations. He found the students were significantly ($p < .001$) more off-task during sections of the rehearsal when they were not performing. Significant ($p < .001$) differences were also found in off-task rates as the percentages of rehearsal time in non-performance increased. In addition, it was discovered that as breaks in performance became more frequent student off-task rates became slightly, but not significantly, higher. The students involved in the experiment stated a preference for portions of the rehearsal involving the least amount of performance break. Spradling believes his study supports the consensus that student performance is reinforcing while teacher instruction hinders necessary reinforcement and is possibly seen as punishment.

Madsen & Geringer (1983) studied university music class student attending behavior in relationship to teacher lecture, student discussion, performance, listening, dictation, and preparation. The researchers found lower levels of off-task behavior occurred during performance and higher levels of off-task behavior occurred during preparation periods throughout all music curricular areas examined. They suggested student attentiveness would improve by using more music in the class and decreasing teacher preparation and lecture. In a separate study, Merrion (1989) also found less time being devoted to discussion by college-level instrumental ensemble conductors diminishes off-task behavior.

Forsythe (1977) also examined attending behavior in relation to classroom activity. His study compared levels of attending behavior within the elementary music class room. He found attending behavior to be a function of class activity. Singing produced the lowest level of off-task behavior. Both preparation activities and verbal interaction produced high levels of off-task behavior. He suggested there is a positive correlation between greater student involvement and attending to learning experiences and activities. In support of this, Brendell (1992) found higher off-task rates when students were not actively involved in the classroom activity taking place. Student off-task rates were highest during preparation periods (26.14%).

In a study examining the effects of age, sex, and activity on student attentiveness in the elementary music classroom (Moore, 1987), activity, rather than the amount of time in the activity, was found to affect student attentiveness. His subjects spent minimal time in preparation, yet students were most inattentive during preparation activities. More time

was used in the activity of singing (30%) than instrumental performance (5%), but off-task rates were higher while classes were singing (6% and 3% respectively). In this study the least off-task behavior occurred during instrumental performance (2.7%). Brendell (1992) also found off-task behavior to be a function of activity rather than time used in each activity.

Wagner & Strul (1979) suggested the use of class time by the teacher affects student academic achievement. Portions of rehearsal in which students were actively involved in performance have been shown in several studies to be more beneficial to student achievement than portions which involved teacher verbal behavior. In an article giving suggestions for the use of rehearsal time (Fowler, 1978) mentioned that "frequent stops [have been shown to] lower a player's level of proficiency" (p. 38). In a study comparing non-verbal modeling and verbal instruction in instrumental classrooms, Dickey (1988) concluded non-verbal modeling instruction proved to be more effective on the ear-to-hand skills and kinesthetic response skills of students than did verbal instruction. Due to the importance of active student involvement, teacher effectiveness is often determined by the ability to keep students actively involved (R. C. Watkins, 1996).

The only study not supporting the assumption that students are more attentive during performance than non-performance examined off-task behavior during the initial minutes of choral rehearsals (Brendell, 1992). In this study, students performed during warm-up exercises but were visibly off-task. Brendell suggested that students were not as attentive during this performance activity due to the exercises being a routine of almost exact daily repetition and not requiring active concentration.

Effects of Experience On Time Use

There is minimal research that correlates the amount of experience of music educators and their use of class time. Moore (1981) suggested that an investigation into the use of class time by experienced teachers could be very helpful in setting standards for the profession.

Kohut and Grant (1990) concluded the manner in which conductors utilize time in talk or performance was vital when considering the pace of the rehearsal. They asserted conductors having less experience talk during rehearsals to a greater degree than those with more experience. They also proposed the teaching quality of less experienced conductors is below that of greater experienced conductors. The new teacher does not usually follow through in assessing the students' comprehension of teacher suggestions as well as the more experienced teacher.

In comparing beginning with experienced teachers, Moore (1981) found experienced teachers spent more time on task than beginning teachers and spent less time in preparatory activities. In other studies comparing music educators' use of class time, minimal difference was found in the use of class time by teachers with varying years of experience. Though his subjects varied in age range and experience, Birkner (1992) discovered they all devoted slightly more than 50% of rehearsal time to performance. Another similarity is that approximately 50% of verbal communication by all of the directors was directed toward the entire ensemble. Moore & Bonney (1987) similarly found minimal differences in the way student teachers and experienced general music teachers utilized available class time. Student teachers in the study devoted slightly more

time to the activities of preparation and listening than the experienced teachers. Both groups of subjects led students through musical activities for approximately half of the allotted class time.

In a study which examined usage of time by high school choral directors in various non-performance activities, R. C. Watkins (1996) considered the effect of teaching experience on the director's focus of certain non-performance activities. She found her subjects devoted 38.6% of class time to non-performance activities and the remainder to performance. The researcher also discovered a low, insignificant correlation ($r = .158$) between the amount of teaching experience of the director and the percentage of non-performance time used to develop higher order thinking skills.

R. E. Watkins (1986) similarly examined different types of verbalization by high school choral directors during their rehearsals. He found his subjects to use approximately 50% of rehearsal time in "verbal behavior" and 50% in leading student performance. This percentage was not affected by teaching experience or rehearsal situations. R. E. Watkins initially assumed certain unavoidable rehearsal situations would normally alter the use of rehearsal time. However, he did find a mean difference in the percentages of time that directors used in the different areas of verbal behavior under the condition of teaching experience.

Goolsby (1996) compared time usage by experienced, novice, and student band directors in middle schools and high schools. He examined their use of time in musical instruction, performance, and non-teaching activities. The experienced teachers in his study used significantly ($p < .01$) more rehearsal time in performance when compared to

novice and student teachers. Experienced teachers also talked the least, provided the most break time, used the most non-verbal modeling, got the ensembles on-task the quickest, and divided the rehearsal time between warm-up and rehearsal of two musical selections most equally.

In Wagner & Strul's (1979) study, which compared the use of music class time among experienced elementary music teachers, music teaching interns, and pre-interns, minimal differences were found in the use of class time. Attitudinal surveys comparing student opinions of the three classifications of teachers did not significantly differ. Student teachers modeled the teaching style of the experienced teachers by whom they were supervised. However, experienced teachers did significantly ($p < .05$) use less time giving instructions than the other subject groups. "Experienced teachers gave directions in approximately one-half the time used by pre-interns and interns" (p. 120).

Effects of School Class Schedule On Time Use

There has been substantial research concerning the restructuring of schools and alternative scheduling of time. One of the most common reforms impacting the use of time in schools is that of altering the traditional class schedule (Pruett, 1996). Traditional scheduling usually consists of a six hour school day divided into six or seven class periods of 50-55 minutes in length. A popular alternative to the traditional class schedule is the block schedule. Block scheduling is a rearrangement of the traditional six hour school day into four blocks of time for class. The four class periods are "75-90 minutes in length with

a flexible period for lunch providing time for enrichment of remediation activities”

(Blocher & Miles, 1995, p. 16).

The block schedule can be arranged in at least three different variations. The straight 4X4 block schedule is an arrangement in which four, 90-minute classes meet one semester and four different classes meet the next semester. The modified 4X4 schedule is similar to the straight 4X4 with the exception that one period is divided in half to allow classes receiving 1/2 credit per semester to meet. The classes meeting during this half block may or may not meet the entire year. The rotating A/B block is a block schedule in which eight classes each meet five times in a 2-week time frame. Classes are placed into either group A or group B and normally alternate meeting days. There are many variations of the rotating A/B block schedule (Hall, 1995).

There are several advantages a block schedule provides to the music classroom which a traditional schedule does not. The greater amount of class time in the block schedule allows for stronger development of performance ensembles. In music theory and music history, teachers are also given more time to incorporate musical knowledge development. The longer rehearsal also allows differing performance ensembles to share the rehearsal time. This allows students to participate in more than one ensemble. Block scheduling also allows for more time in which an ensemble can perform at other schools or places in the community without taking students out of their other classes (Meidl, 1995).

The block schedule also has many disadvantages when it is applied to the music classroom. The straight 4X4 block schedule does not readily allow for a class to meet two

consecutive semesters. The ability to rehearse throughout the entire school year is vital to the performance ensemble. When music classes are allowed to meet throughout the entire school year, other classes often consider meeting year round as well. Graduation requirements call for students to take more hours than would be available if many of their classes were to meet two consecutive semesters. When students' schedules do not allow them to be enrolled in the performance ensemble the entire school year they must either leave or enter the class between semesters. This results in many problems due to the varying levels of student ability in the class. The rotating block schedule can, at times, eliminate the opportunity for an ensemble to rehearse during the week of a concert. Another disadvantage of the block schedule is that it may not provide enough class periods for all of the available music classes. Many of the ensembles are combined and others lose members as a result (Meidl, 1995).

There is minimal research that correlates the usage of time by music teachers to the type of class schedules in the schools. In a survey examining the effects of block scheduling on the music classroom, 81% of the participants responded they were adding musical activities, such as music theory and music history, into their rehearsals. There was no mention of allotted time for these activities within the rehearsals (Meidl, 1991).

Summary

There are many studies examining the use of available class time by music teachers. However, studies comparing the use of class time by music teachers having differing amounts of experience are minimal. Specifically, there is a need to further compare band

directors' use of class time as related to teaching experience. It would be very useful to the profession to gain insight into how band directors with differing amounts of experience use allotted time for high school band rehearsals. As Moore (1981) suggested, such information could be used as a guideline for other music educators. Often, teachers do not realize the amount of talking they do during a normal class time (Spradling, 1980; Withrow, 1981). Through a better realization of how rehearsal time is utilized in the music classroom, teaching and learning within the class could be greatly enhanced (Brendell, 1992). Data that clarifies band directors' use of class time could lead the directors to adjust their techniques and time management in order to better benefit themselves and their students.

The use of block scheduling in place of traditional scheduling is a very controversial subject in schools today. Block scheduling can be both detrimental and beneficial to the school performance ensemble. An examination of how band directors subject to block scheduling use their allotted rehearsal time could provide evidence to support or oppose using the scheduling system. Such evidence could be used to support the music educator's case for or against block scheduling when faced with the possibility of schedule alteration.

Few comparisons of usage of class time to the number of students in a band director's class have been made. There is also limited data concerning the effects of grade level on the director's use of time. An investigation of these variables may assist band directors to better utilize their allotted class time and gain further insight into the effects of experience and schedule on the use of class time. Therefore, the purpose of this study was to determine if experience, class schedule, class size, and student grade levels are

significant factors in the percentage of time used by high school band directors in either performance or non-performance during band rehearsals.

CHAPTER III. METHOD

The primary purpose of this study was to determine if teaching experience was a significant factor in the percentage of time used by high school band directors in either performance or non-performance during band rehearsals. The operational definitions of performance and non-performance are based on those in a study by Yarbrough and Price (1981). "Performance is defined as playing...by the entire ensemble or by it's smaller sections (including individuals). Non-performance is defined as teacher instruction, teacher reinforcement, or anything not involving students' music performance" (p. 211)

Secondary objectives included determining if school class schedule, class size, and student grade levels were significant factors in the percentage of time used by high school band directors in either performance or non-performance during band rehearsals. An alpha level of .05 was selected for this study.

Subject Selection

The subjects were high school band directors ($N = 21$) selected from a geographical area within a 75-mile radius of Charlotte, North Carolina. Participation in this study was voluntary and contingent on the availability of the subjects.

The subjects were first grouped according to the years of band directing experience they had. The groups consisted of (a) high school band directors having up to 3 years of

teaching experience ($n = 5$), (b) high school band directors with 4-6 years of teaching experience ($n = 3$), (c) high school band directors with 7-10 years of experience ($n = 4$), and (d) high school band directors with 11 or more years of experience ($n = 9$). The subjects were also divided into two groups according to the type of class schedule design employed by their schools. The two subject groups consisted of band directors utilizing either a traditional schedule class time (50-55 minutes) ($n = 8$) or a block schedule class time (up to 90 minutes) ($n = 13$).

Initial contact was made with the subjects, and when necessary other school authorities, by telephone prior to the observation in order to obtain permission to observe the subjects and collect data. The observations were also scheduled during this initial contact with each subject. Observations of the subjects occurred in May, 1996 during regularly scheduled band rehearsals. Each of the subjects was observed at the schools in which they were employed.

Immediately preceding each of the observations the participating band directors were asked to sign a form granting permission for the data to be collected (See Appendix A). Permission was also granted by each of the subjects for their rehearsals to be recorded on an audio cassette in order to verify the data. Anonymity of the subjects and their schools was guaranteed for the reporting of data collected.

Procedures and Data Collection

Data were collected in consecutive 30-second time intervals beginning with the sounding of the tardy bell and continuing until the conclusion of the rehearsal time. A

stop watch was used to measure each 30-second interval. At the end of each 30-second interval the researcher recorded the activity taking place at that moment on the data collection form (Appendix B). The behaviors were recorded as either "performance" or "non-performance" using the operational definitions listed earlier. Due to the investigation's attempt to record accurate data that occurs in the normal classroom environment, the observer maintained low visibility and did not alter the classroom environment. The subjects were asked to conduct a typical rehearsal.

An audio cassette recording of each observation was made in order to assess interrater reliability. The 30-second timed intervals were marked on the recordings by a soft click. The tape recordings were listened to by a trained observer who also recorded the activities occurring using the same criteria.

Prior to each observation, the subjects were asked to fill out a questionnaire (Appendix C). The form requested the director's name, position, years of experience in band directing, years at the current position, size of the director's current band, student grade levels included in the band, and the type of class schedule the director's school utilizes.

Analysis

Mean percentages of time in each activity were calculated from the data collected. The data were then compared within the variable of experience using a Kruskal-Wallis One-Way Analysis of Variance. The other variables compared the data using t-tests. The variables were compared through subject groupings for experience, schedule, size, and

grade level. The subject groupings according to experience were: (a) band directors in their first 3 years of teaching, (b) band directors with 4-6 years of experience, (c) band directors with 7-10 years of experience, and (d) band directors with 11 or more years of experience. The subject groups according to schedule consisted of band directors in schools utilizing either a traditional class schedule or a block schedule. Subject groups according to size were separated into bands with up to 59 members and those with 60 or more members. Subject groups were organized by grade level into classes composed of students in grades 9-12 and those composed of students in grades 10-12. Comparisons of the data within these variables were examined to determine levels of significance.

Data reporting the years of teaching experience of each subject was collected on the questionnaire completed just prior to each observation. Years of band directing experience ranged from 1 year to 44 years. The mean teaching experience for all subjects ($N = 21$) was 14.95 years. The median for the range of teaching experience was 9 years of experience. The distribution of each subject's teaching experience is presented in Table 1.

In order to more readily compare the subjects' experience to their time use, subjects were assembled into groups according to years of teaching experience. Groupings of experience were: (a) high school band directors having up to 3 years of teaching experience, (b) high school band directors with 4-6 years of teaching experience, (c) high school band directors with 7-10 years of experience and (d) high school band directors with 11 or more years of experience. The distribution of subjects into teaching experience groups is shown in Table 2.

Schools

Subjects were also grouped according to class schedule type utilized by their schools. The two class schedule groups were (a) subjects in schools utilizing a form of block schedule (75-90 minute classes), and (b) those in schools utilizing a traditional schedule (approximately 50 minute classes). Of the subjects observed 61.90% ($n = 13$) taught in schools utilizing a form of block scheduling. The remaining 38.10% ($n = 8$) utilized a traditional class schedule. The distribution of subjects according to class schedule is also shown in Table 2.

Table 1

Distribution of Subject Teaching Experience

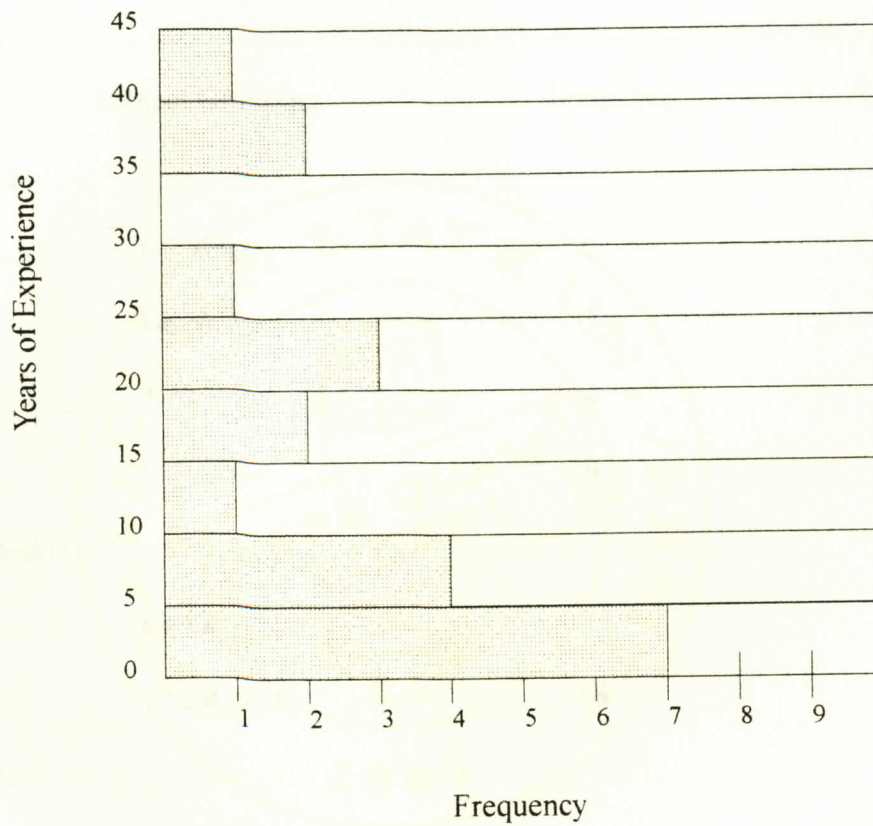


Table 2

Subject Profile

	Subject Grouping	Frequency
Experience		
	1-3 Years	5
	4-6 Years	3
	7-10 Years	4
	11 + Years	9
Class Schedule		
	Block	13
	Traditional	8
Class Size		
	1-59 Members	11
	60 + Members	10
Student Grade Levels		
	Grades 9-12	14
	Grades 10-12	7

Band Classes

In addition to the variables of experience and class schedule, directors were also arranged into groups according to the grade level of the students within their ensembles. The subject groupings for student grade level were (a) directors leading bands consisting of students in grades 9-12 ($n = 14$), and (b) those leading bands consisting of students in grades 10-12 ($n = 7$).

Subjects were also organized into groups according to the number of students in their ensembles. There were 11 subjects who taught classes with up to 59 band members. The other 10 subjects directed bands with 60 or more students. Class sizes ranged from 20-163 students ($M = 65$). The median class size was 58 band members. The distribution of subjects' ensemble sizes is shown in Table 3. Assignment into groupings according to student grade levels and band size are also located in Table 2.

Rehearsal Time Usage Data

In order to investigate the use of rehearsal time by the band directors participating as subjects in this study, one rehearsal of each subject's band was observed. Data was collected in 30-second intervals regarding student performance or non-performance. This data was compared to the variables of experience, type of class schedule, size of the band class, and student grade levels.

Rehearsal Time Devoted to Performance

The subjects in this study devoted a majority of time to the activity of performance during their rehearsals. The smallest percentage of rehearsal time devoted to performance

Table 3

Number of Students in the Observed Band Programs

	Number of Students		Number of Bands
	1-25	Students	1
	26-50	Students	6
	51-75	Students	10
	76-100	Students	2
	101-125	Students	0
	126-150	Students	0
	151-175	Students	2

was 32.46% while the largest percentage was 69.66%. The mean percentage of rehearsal time the subjects led their bands in performance was 50.21% of the available class time. The median percentage of rehearsal time in this activity was 48.65%. The standard deviation of the subjects' distribution of performance in their rehearsals was 11.60. The distribution of percentages of rehearsal time devoted to performance is shown in Table 4. Percentages of rehearsal time subjects devoted to non-performance were not discussed due to the definition of the activity. Non-performance periods were considered to be any portion of the rehearsal when the activity of performance was not occurring. Therefore, the remaining percentage of rehearsal time not in the activity of performance was in non-performance.

Experience

The variable of experience was investigated to assess any effects it may have on subjects' use of time in the activities of performance and non-performance. Subjects were arranged into groups according to the amount of teaching experience. Arranged by experience were (a) band directors with up to 3 years of experience, (b) band directors with 4-6 years of experience, (c) band directors with 7-10 years of experience, and band directors with 11 or more years of experience. Data representing percentages of rehearsal time devoted to performance were first compared between these experience groupings.

Mean percentages of rehearsal time in the activities of performance and non-performance are presented in Table 5. A Kruskal-Wallis One-Way Analysis of Variance revealed no significant differences ($p = .96$) between experience groups use of rehearsal time. The 4-6 years of experience group had the lowest mean performance time

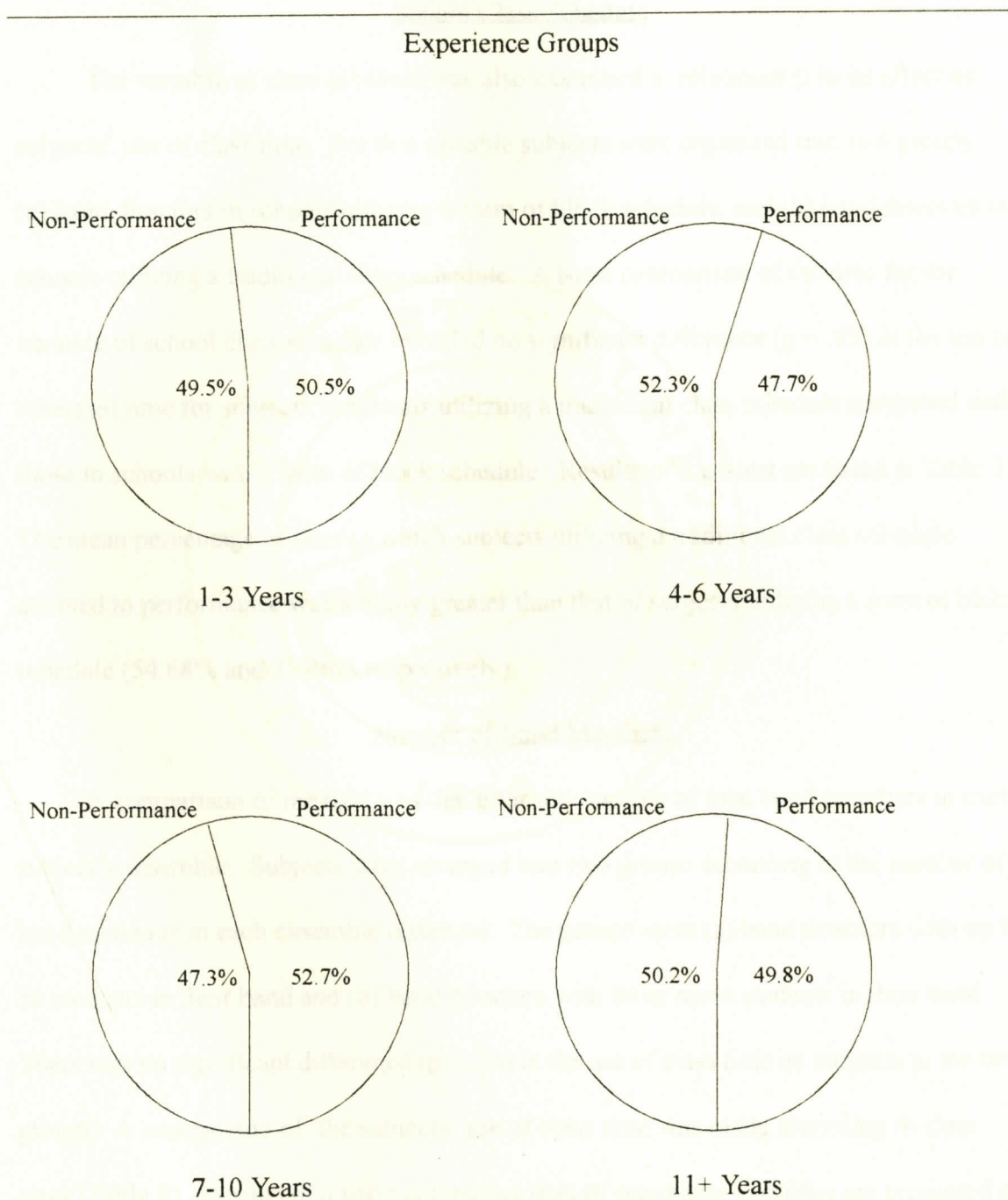
Table 4

Percentages of Time Devoted to Performance

Time in Performance	Subject Frequency
30%-34.9%	3
35%-39.9%	1
40%-44.9%	3
45%-49.9%	5
50%-54.9%	3
55%-59.9%	2
60%-64.9%	1
65%-69.9%	3

Table 5

Comparison of Experience to Time in Performance



($M = 47.69\%$) while the 7-10 years of experience group had the highest ($M = 52.69\%$).

Results of the Kruskal-Wallis One-Way Analysis of Variance are listed in Table 6.

School Class Schedule

The variable of class schedule was also examined in relationship to its effect on subjects' use of class time. For this variable subjects were organized into two groups: (a) band directors in schools utilizing a form of block schedule, and (b) band directors in schools utilizing a traditional class schedule. A t-test comparison of the data for the variable of school class schedule revealed no significant difference ($p = .85$) in the use of rehearsal time for subjects in schools utilizing a traditional class schedule compared with those in schools with a form of block schedule. Results of the t-test are listed in Table 7. The mean percentage of time in which subjects utilizing a traditional class schedule devoted to performance was slightly greater than that of subjects utilizing a form of block schedule (54.68% and 47.46% respectively).

Number of Band Members

A comparison of the data was made for the variable of total band members in each subject's ensemble. Subjects were arranged into two groups according to the number of band members in each ensemble observed. The groups were (a) band directors with up to 59 students in their band and (b) band directors with 60 or more students in their band. There was no significant difference ($p = .54$) in the use of class time by subjects in the two groups. A comparison of the subjects' use of class time was made according to class sizes (Table 8). Results of a t-test comparing data of secondary variables are presented in Table 7.

Table 6

Results of Kruskal-Wallis one-way ANOVA

Source	df	Sum of Squares	Mean Square	S.D.	E	p
Experience						
1-3 Years	3	45.737	15.246	10.298	.098	.960
4-6 Years	3	45.737	15.246	11.637	.098	.960
7-10 Years	3	45.737	15.246	15.014	.098	.960
11+ Years	3	45.737	15.246	12.613	.098	.960

*p < .05

Table 7

Results of t-tests

Source	S.D.	E	p
Schedule			
Traditional	11.636	1.10	.848
Block	11.118	1.10	.848
Class Size			
1-59 Members	10.614	1.49	.544
60+ Members	12.944	1.49	.544
Grade Levels			
9-12	12.110	1.71	.528
10-12	9.272	1.71	.528

*p < .05

Table 8

Comparison of Band Size to Directors' Use of Time

Number of Band Members	Time in Performance
59 or Fewer	48.66%
60 or More	51.91%

Student Grade Levels

The final comparison of data was analyzed for the variable of composite student grade levels within each subjects' ensemble. Groupings for subjects due to student grade levels in their ensembles were set to the limits of (a) band directors leading bands containing student grade levels of 9-12, and (b) band directors leading bands containing student grade levels of 10-12. Band directors leading bands containing student grade levels 9-12 led their ensembles in performance an average of 47.69% of the available rehearsal time. Those leading bands with student grade levels 10-12, led their ensembles in the activity 55.26% of the observed rehearsal. Although those directing students in grades 10-12 led performance a greater percentage, the difference was not significant ($p = .53$). Results of this t-test are presented in Table 7.

Interrater Reliability

An audio cassette recording was made during each observation for ex post facto assessment of observer reliability. Each 30-second interval was marked on the tapes with a soft clicking sound. A trained observer listened to the tapes and marked the activity that occurred at each 30-second interval employing the same procedures followed during the initial observation. Due to machinery malfunction only 18 of the 21 observations were assessable. Data collected by the researcher and interrater exactly matched for each of the observation intervals on the 18 assessable cassettes.

Summary

The high school band directors ($N = 21$) participating as subjects in this study utilized a mean of 50.21% of their available rehearsal time in the activity of performance. The remainder of available rehearsal time was utilized in non-performance. The greatest percentage of time spent in performance by any of the subjects was 69.66% and the least percentage was 32.46%.

There were no significant differences ($p = .96$) in the use of rehearsal time in performance by subjects with (a) up to 3 years of experience, (b) 4-6 years of experience, (c) 7-10 years of experience, and (d) 11 or more years of experience. Respective uses of time in the activity by the groups were (a) 50.5%, (b) 47.7%, (c) 52.7%, and (d) 49.8%.

The variable of class schedule had no significant effect ($p = .85$) on the use of rehearsal time by the subjects. Band directors in schools utilizing a traditional class schedule spent 54.68% of the available time in performance. Subjects in schools utilizing a form of block schedule led performance 47.46% of the available time.

Subjects leading ensembles with up to 59 band members used 48.66% of the rehearsal time in performance. Those directing bands with 60 or more members led performance 51.91% of the class time. The variable of class size also had no significant effect ($p = .54$) on the subjects' use of class time.

A comparison of the use of class time for student grade levels also resulted in no significant relationship ($p = .53$). Teachers with bands containing students in grades 9-12 led students in performance an average of 47.69% of the available class time. Subjects teaching students in grades 10-12 used 55.26% of the rehearsal for performance.

CHAPTER V. CONCLUSIONS

Summary

Taking full advantage of available instructional time is a concern for teachers in any subject area. Proper use of class time engaging students in attentive learning is frequently used, by administrators, as an area of evaluation for educators. Many researchers have investigated attentiveness as related to learning and have found positive correlations. Most research results support the premise that greater student attentiveness produces higher student learning levels. It has been documented many public school ensemble conductors include a great amount of direct student involvement in their rehearsals. Research investigating school music rehearsals has shown various uses of available class time. The present study examined the usage of time within the high school band rehearsal.

This study investigated the percentages of rehearsal time high school band directors devoted to performance versus non-performance. The focus of the investigation was to examine the effect, if any, teaching experience had on the use of class time. Secondary purposes of the study were to examine the use of class time by band directors as it related to class schedule, class size, and student grade levels.

Observations of 21 high school band rehearsals provided data comparing the use of class time for the selected variables. A questionnaire was used to obtain

demographic data in order to arrange subjects into groups for comparison. Data consisting of percentages of rehearsal time devoted to the activities of either performance or non-performance were compared within the given variables.

Discussion

The results of this study corroborate the results from similar studies as cited in the review of literature. Demographic information and data based on usage of rehearsal time can be further expanded upon. No significant differences were found in the use of time due to any of the examined variables. This suggests the use of class time, by band directors, may be subject to the individual's design rather than experience, class schedule, class size, or student grade levels.

Band Director Experience

Subjects participating in the study possessed a wide range of experience. Teaching experience levels ranged from 1 year to 44 years of band directing experience. Although there was a wide range in the group having 11 or more years of experience, another subgrouping, for data comparison, was deemed unnecessary.

The band directors participating in this study conducted their ensembles in performance an average of 50.21% of the allotted rehearsal time. This percentage is slightly lower when compared to other available research, where time devoted to performance encompassed approximately 60% of the available rehearsal period (Dickey, 1988; Montgomery, 1986; Murray, 1980; Pontious, 1982; Single, 1990; Spradling, 1985; Thurman, 1977; Tyson, 1988; Witt, 1986). However, the average time in performance

found in this study corroborates the percentages found by other researchers (Caldwell, 1980; Madsen & Geringer, 1983; Merrion, 1989; R. E. Watkins, 1986; Witt, 1986). The range of performance time percentages during this study (32.46% - 69.66%) is more variable when compared with other studies.

The examination of the effect of experience on the subject's use of class time appears to support other researchers' findings. The results demonstrate minimal difference in the use of class time in performance due to teacher experience (Birkner, 1992; Moore, 1981; Moore & Bonney, 1987; Wagner & Strul, 1979). However, this study did not examine the use of time in specific areas of non-performance which may result in significant differences due to experience.

A total of 21 high school band directors in a geographical area within a 75-mile radius of Charlotte, North Carolina participated as subjects in this study. All observations occurred during the month of May, 1996 during regularly scheduled band rehearsals. A relatively small number of band directors participated in the study due to the lack of availability of more band directors during the observation time. This particular time of year (May) was not ideal for observation. During this last month of school many bands have finished preparing for contests and spring concerts. Having no other performances to prepare, some directors focus on areas other than musical rehearsal. As a result, many directors declined participation in the study.

School Class Schedule

The type of class schedule utilized by each subject did not affect the percentage of class time used in performance. Due to this study's consideration of activities as being

either performance or non-performance, other verbal behaviors or activities labeled non-performance may show significant differences resulting from class schedule. One of the supposed advantages of the use of block scheduling is teacher incorporation of other concepts of music into the ensemble rehearsal (Meidl, 1995). Though this is an advantage frequently associated with the block schedule, only two of the 13 schools using such a schedule incorporated activities that could be considered something other than the basic activities of performance and non-performance. One utilized 9.04% of his available rehearsal time incorporating theory instruction the other used 18.46% of her rehearsal time showing a video relating to band.

Number of Band Members

The number of band members within a director's ensemble was not a significant variable as it related to performance time. Examination of other verbal behaviors that were considered non-performance activity in this study, such as verbal instruction, preparation, and student verbal behavior, may show significance resulting from class size if compared.

Student Grade Levels

The examination of grade levels revealed no significant effect on the subject's use of class time. In the areas of performance versus non-performance this data supports former research. Other researchers found significant differences in the use of verbal behaviors and other non-performance activities (Yarbrough, 1988). Again, specific areas of non-performance were not analyzed for significance in this study. Further separation of

non-performance into different verbal behaviors could result in significant differences of time usage due to student grade levels.

Recommendations for Future Research

This study examined the effects of the variables of experience, school class schedule, class size, and student grade levels on the use of rehearsal time in performance and non-performance by high school band directors. Results of the study may serve as a framework for future research into the use of available time in the music classroom.

The number of subjects participating in this study ($N = 21$) was limited. Future research should be conducted with a larger, randomized sample located in a larger geographical area. In order to have a more representative collection of data for each director, additional research should examine multiple rehearsals of the same director and band, several times throughout the school year.

This study examined any effect grade levels may have had on the usage of time by the band directors. The participating bands were components of schools grouped by grades 9-12 or 10-12. Though no significant differences were found, future research examining a wider range of student grade levels may prove more significant. This study examined only two specific types of class scheduling. Other research could investigate the use of time by band directors utilizing the various hybrids of block scheduling available as well as those examined in this study.

Performance and non-performance were the only activities considered in this study. A further investigation of all activities and verbal behaviors exhibited during

non-performance periods may result in significant differences in the use of time.

Activities included or labeled as non-performance are: teacher instruction, student verbalization, warm-up, preparation, outside or unplanned distractions, and inactivity. It is recommended these verbal behaviors and activities be examined in relation to experience, class schedule, class size, and student grade level.

In conclusion, the results of this investigation support the findings of some studies and refute others. The area of rehearsal time use in music ensembles is extensive and complex. Further study of the use of class time by music educators in each of the previously discussed areas is recommended in order to provide effective teaching strategies and alternatives for others in the music education profession.

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Researcher: Brenda Van Eagle

Principal Investigator: Dr. Jay C. Jackson

This study involves research on unintentional substance abuse behaviors. It will focus on behaviors that normally occur in the work place environment. Your participation is requested for the observation of these behaviors on a regularly scheduled basis. There will be approximately 20-25 work place employees participating in this study. Your completing your behavior to the other employees participating in this study will not directly in any way affect the subjects of the study. Your participation, or lack thereof, according will be made of your behavior in the work place environment for the purpose of verifying the data collected on your behaviors. There will be no penalty for not participating and no reward for participating in this study.

APPENDIX A Consent Form

Your name and program will be listed in the results of this research. Anything identifying you or your program will not be shared with anyone. If you have questions or wish to see the results, please call the research team at the address listed at the top of this form. If you wish to see the results, please call the research team at the address listed at the top of this form. If you wish to see the results, please call the research team at the address listed at the top of this form. If you wish to see the results, please call the research team at the address listed at the top of this form.

Consent Form

Researcher: Keith Evan Eagle (704) 322-6021

Faculty Advisor: Dr. Jay C. Jackson (704) 262-6459

This study involves research into high school band director behaviors. It examines director behaviors that normally occur in an every day band rehearsal. Your participation is requested for the observation of only one of your regularly scheduled band rehearsals. There will be approximately 20-25 other band directors participating in this study. Data comparing your behavior to the other subjects participating in this study will not identify in any way any of the subjects or programs involved. With your permission, an audio recording will be made of your rehearsal but only for the purpose of verifying the data collected on your behaviors. These will be saved for review of data only and not for judgement of you or your program.

Your name and program will not be identifiable in the results of this research. Anything identifying you or your program will not be shared with anyone.

Should you have questions related to the research, please call the researcher or faculty advisor listed at the top of this form.

You may contact the Appalachian State University Institutional Review Board at the following address and telephone number at any time during this study if you feel your rights have been violated:

Chairperson, Institutional Review Board
c/o Graduate Studies and Research
Walker Hall, Appalachian State University
Boone, N. C. 28608
(704) 262-2130

Participation in this study is entirely voluntary. Refusal to participate will involve no penalty or loss of benefits in which you are otherwise entitled. You may discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled.

I consent to participation in this study _____

APPENDIX B
Data Collection Form

School _____ Director _____ Date _____

	P	N		P	N		P	N		P	N		P	N		P	N
1			21			41			61			81			101		
2			22			42			62			82			102		
3			23			43			63			83			103		
4			24			44			64			84			104		
5			25			45			65			85			105		
6			26			46			66			86			106		
7			27			47			67			87			107		
8			28			48			68			88			108		
9			29			49			69			89			109		
10			30			50			70			90			110		
11			31			51			71			91			111		
12			32			52			72			92			112		
13			33			53			73			93			113		
14			34			54			74			94			114		
15			35			55			75			95			115		
16			36			56			76			96			116		
17			37			57			77			97			117		
18			38			58			78			98			118		
19			39			59			79			99			119		
20			40			60			80			100			120		

Questionnaire

Please answer the following questions from your own point of view. Thank you for your cooperation in this study.

1. What is your name?

2. What school do you study in and what is your position?

3. How long has your school been in existence?

APPENDIX C Questionnaire

4. How long have you been in your present position?

5. What grade or grades are you teaching in the present school?

6. How many students are enrolled in the school presently?

7. What type of class schedule does your school operate? (a) Block, (b) Traditional

Questionnaire

Please answer the following questions about yourself and your band. Thank you for your cooperation in this study.

1. What is your name?
2. What school do you work in and what is your position?
3. How long have you been a band director?
4. How long have you worked at your current position?
5. What student grade levels compose the band observed?
6. How many students are enrolled in the band observed?
7. What type of class schedule does your school utilize? (Ex. Block, Traditional)

VITA

Keith Evan Eagle was born in Charlotte, North Carolina, on December 9, 1971. He attended elementary schools in Huntersville, North Carolina, and graduated from North Mecklenburg High School in June 1990. The following August he entered Wingate College, and in December 1994 he received a Bachelor of Music Education degree. In January 1995 he began study toward a Master's degree. This degree will be awarded in May 1997. He is currently employed by the Charlotte-Mecklenburg Schools and Independence Hill Baptist Church.

The author is a member of the Music Educator's National Conference and the Society for Research in Music Education. Mr. Eagle's address is 136 Rocky Knoll Court, Denver, North Carolina. His parents are Mr. and Mrs. John C. Eagle, Junior of Charlotte, North Carolina. He is married to the Kimberly Scism Eagle of Kings Mountain, North Carolina.